

Memo
 From Jim Ampe
 Date October 29, 2001
 Subject Time to Peak Measurements with CsI, for GLAST Calorimeter. Second Measurements.

Summary:

Time to peak measurements were made using a GLAST PIN diode and CsI scintillator. An Ev preamp signal was ac coupled (2 uF ceramic) through a switch selectable CR-RC shaper of an old Ortec 510 shaper amp module, output taken out of the unipolar output. The differentiator and integrator time constants were set to the same value for measurements. The signal source is muons through the scintillator. Below is a table of the measurements with recorded scope plots.

Table 1 Measured time to Peak Values.

CR-RC Time Constant	Measured Time to Peak
0.1 us	0.6 us
0.2 us	0.8 us
0.5 us	1.4 us
1.0 us	2.2 us
2.0 us	3.5 us
5.0 us	7.0 us

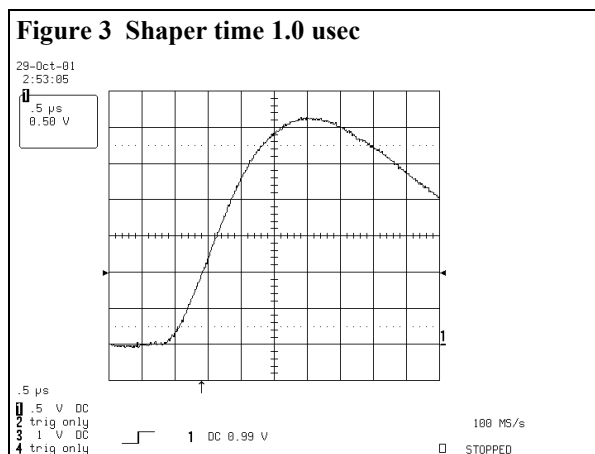
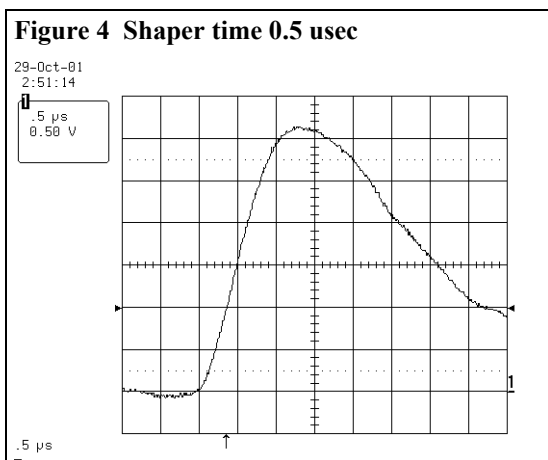
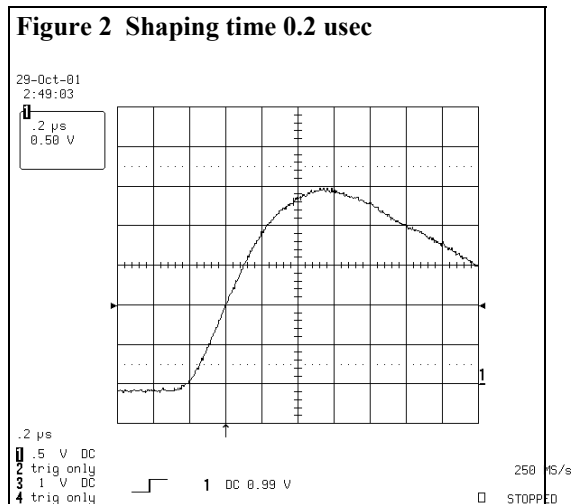
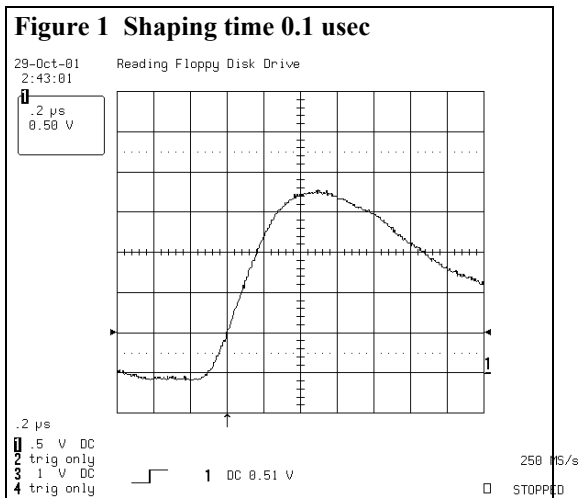


Figure 5 Shaper time 2.0 usec

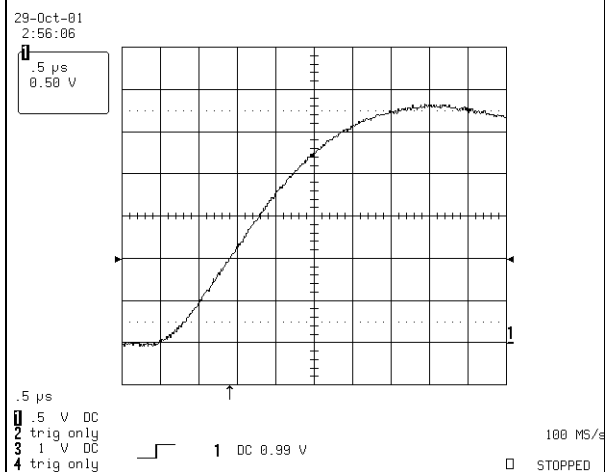


Figure 7 Shaper time 5.0 usec

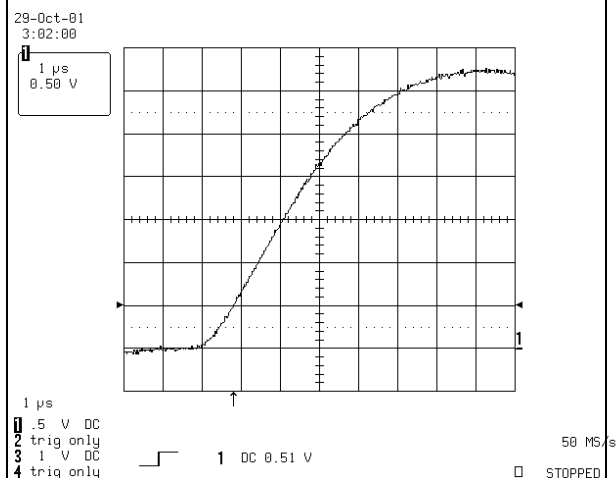


Figure 8 AC coupled preamp output into scope

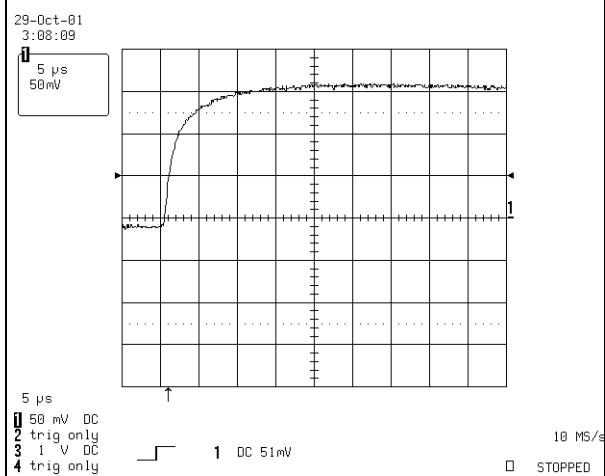


Figure 6 DC coupled preamp output into scope

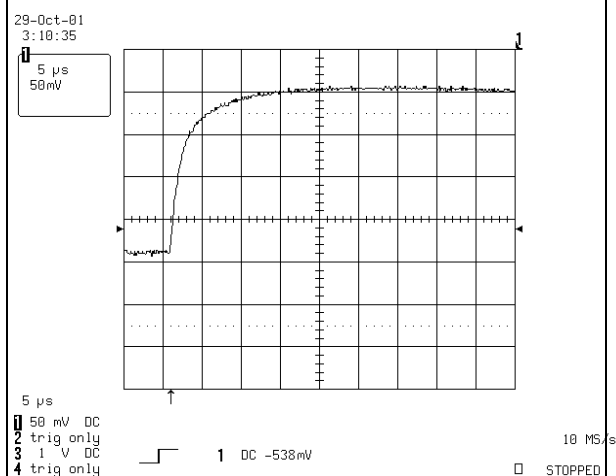


Figure 9 AC coupled preamp output into shaper and scope

